UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
PATEL, DHAIRYA A

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/995,474	GRECH ET AL.
	Examiner	Art Unit	
	Dhairya A. Patel	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 May 2005_.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-66_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-66_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communication filed on 5/24/2005. Claims 1-66 are

rejected.

2. Applicants filed arguments are fully considered but are not persuasive.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-2,5-9,12,15-22,23-24,27-31,34,37-46,49-53,56,59-66 are rejected

under 35 U.S.C. 102(e) as being anticipated by Ross et al. U.S. Patent # 6,477,571

(hereinafter Ross).

As per claim 1, Ross teaches a method for performing isolation of dropped

packets in a computer network, said method comprising:

-receiving a request for analysis, said request including a source node and a

destination node (column 5 lines 1-13, lines 35-45);

The reference teaches receiving a request for analysis an informational packet,

which includes source node and destination node.

-mapping an expected path in response to said request for analysis, said

expected path including a probe; (column 5 lines 15-35)

The reference teaches the recording devices (probes) are connected using the

communication line of the segment being monitored and the informational packets will

be communicated on the communication line. Sine the informational packets for

analysis are going to be back an forth on the communication line which is expected

path, the recording device (probe) are going to be placed on the expected path

-creating a capture filter profile (Fig. 1 element 36) for said probe;(column 5 lines

1-13)

The reference teaches the recording device (probe) captures informational

packets from the communication line to pass it to the monitoring computer for analysis

-transmitting a request to said probe to perform data collection in response to

said capture filter profile;(column 5 lines 45-54) (column 5 lines 1-13)

The reference teaches the probe perform data collection when the informational

packets are detected (data collection) on the recording device (probe) and are passed

to the monitoring computer (capture filter profile) responsive to the capture filter profile

to conduct analysis

-receiving a data log from said probe, said data log created by said data

collection; and (column 5 lines 50-67) (column 6 lines 1-10)

The reference teaches information packets are detected on the communication

line by the recording device (probe) and are collected by service request analyzer. The

service request analyzer generates for each service request determined, a service

request string that identifies the sequence of information packets therein which is

logging the data as in informational packets (data log created by data collection).

-generating exception data, wherein said exception data is generated in

response to comparing said expected path and said data log (column 5 lines 50-

67)(column 6 lines 1-10).

The reference teaches identifications and simpler service request representation

(exception data) is generated by comparing service request which contains information

packets which takes the path on the communication line are matched (compared) with

service request identifier which is passed from service request string (data log).

As per claim 2, Ross teaches the method of claim 1 wherein said request further

includes a network protocol identifier. (Fig. 3)

The reference teaches a request and an informational packet which is always

going to contain network protocol identifier.

As per claim 5, Ross teaches the method of claim 1 wherein said capture filter

profile includes said source node and said destination node. (Column 5 lines 23-34,

lines 37-43, lines 46-59)

The reference teaches monitoring computer (capture filter profile) receives the informational packets, which contains source node and destination node and then performs analysis using the information.

As per claim 6, Ross teaches the method of claim 5 wherein said capture filter profile further includes a network protocol identifier (Fig. 3).

As per claim 7, Ross teaches the method of claim 1 wherein said request for analysis is initiated programmatically by an agent in a network endpoint. (Column 5 lines 45-59)

The reference teaches recording device connected to the monitoring computer (network endpoint), which is part of the network according to Fig. 2 are detected on the communication line (initiated programmatically), which is then picked up by recording device and forwarded to the service request analyzer (agent which initiates it).

As per claim 8, Ross teaches the method of claim 1 wherein said mapping an expected path is restricted based on network topology data (column 5 lines 15-45).

As per claim 9, Ross teaches the method of claim 1 wherein said data log comprises: said source node, said destination node, a probe identifier, and a unique packet identifier. (Column 5 lines 35-45 lines 60-67) (Column 6 lines 1-6)

The reference teaches the data log comprises node address of source and destination of the informational packet (source and destination node), port number of the source and destination port (probe identifier) and additional information portion, and the analysis provides request identifier (unique packet identifier).

As per claim 12, Ross teaches the method of claim 1 wherein said generating exception data comprises: generating output data that includes the number of log entries corresponding to said probe (Fig. 2 element 20a) and the number of log entries corresponding to a second probe (Fig. 2 element 20b), wherein said log entries are contained in said data log, and wherein said probe is a source probe and said second probe is a destination probe (column 5 lines 46-67)(column 6 lines 1-9).

The reference teaches storing identifications of all service requests encountered so far (# of log entries) corresponding to the monitoring device (probe 1). It would do the same thing for second monitoring device (probe 2) as mentioned in (column 5 lines 13-34) wherein the source node (Fig.2 element 28) having first recording device (Fig. 2 element 20a) and the destination node (Fig. 2 element 32) having second recording device (Fig. 2 element 2b)

As per claim 15, Ross teaches the method of claim 1 wherein said generating exception data comprises: tracking a packet from said source node to said destination node using a Boolean expression; and generating output data that includes the results of said tracking (column 5 lines 46-67) (column 6 lines1-10).

The reference teaches that tracking is done using hashed lookup, binary search (Boolean expression) and using it to generate output data.

As per claim 16, Ross teaches the method of claim 1, further comprising:

-receiving said data collection request at said probe (column 5 lines 1-23, lines 46-54); and

-programming said probe in response to said capture filter profile (column 5 lines 46-60).

As per claim 17, Ross teaches the method of claim 16 wherein said probe is in passive mode. (Column 5 lines 23-34)

The reference teaches the probe is waiting and then collecting data, which means the probe is operating in passive mode.

As per claim 18, Ross teaches the method of claim 16 wherein said probe is in active mode (column 5 lines 23-34).

The reference teaches an accurate determination of the response time regarding the informational packets will be made which means the probe is operating in active mode.

As per claim 19, Ross teaches the method of claim 18 wherein said capture profile contains instructions to cause said probe to simulate network errors (column 5 lines 46-67)(column 6 lines 1-9)

The reference service request analyzer creates representations of the service request, which is capable of having network errors because service request is created using the monitoring computer, which is monitoring data, which in turn will simulate network errors.

As per claim 20, Ross teaches the method of claim 16 further comprising: capturing packet data for every packet received by said probe (column 5 lines 23-34, lines 46-67)(column 6 lines 1-6).

As per claim 21, Ross teaches the method of claim 16 further comprising:

capturing packet data on a continuous basis at said probe (column 5 lines 23-34, lines

46-67)(column 6 lines 1-6).

As per claim 22, Ross teaches the method of claim 1 further comprising:

capturing packet data for a time period specified by said capture filter profile (column 7

lines 20-37); writing a packet data identifier to said data log when said packet data

matches said capture filter profile; and transmitting said data log to requester of said

data collection (column 5 lines 45-67)(column 6 lines 1-9).

As per claims 23-24,27-31,34,37-44, they teach same limitations as claims 1-2,5-

9,12,15-22 respectively therefore rejected under same basis.

As per claims 45-46,49-53,56,59-66, they teach same limitations as claims 1-2,5-

9,12,15-22 respectively therefore rejected under same basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3,4,25,26,47,48 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ross et al. U.S. Patent # 6,477,571 in view of Chao et al. U.S. Patent

6,549,513 (hereinafter Chao).

As per claim 3, Ross teaches the method of claim 1 but is silent on teaching the

request further includes restrictions on said expected path. Chao teaches request

further includes restrictions on said expected path (Fig. 3 element 160). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Chao's invention to come up with a restriction on expected path in the request. The motivation for doing so would have been so that in case that incase the expected path is broken or not working or is restricting certain packets there is an alternative path for the restricted packets.

As per claim 4, Ross teaches the method of claim 3, but is silent on teaching mapping is altered in response to said restrictions on said expected path. Chao teaches mapping is altered (Fig. 3 element 94) (Fig. 4) in response to said restrictions on said expected path (Fig. 3) (Fig. 4). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Chao's invention to come up with altered mapping in response to the restriction on the expected path. The motivation for doing so would have been to have an alternate path other than the expected path where the restricted packets or packets can go through.

As per claim 25,26,47,48 they teach same limitations as claims 3,4 respectively, therefore rejected under same basis.

5. Claims 10,11,32,33,54,55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. U.S. Patent # 6,477,571 in view of Sera et al. U.S. Patent Publication # 2001/0005371 (hereinafter Sera).

As per claim 10, Ross teaches the method of claim 1 but is silent on teaching further comprising transmitting a retransmission request to a specified node in response to said exception data. Sera teach transmitting a retransmission request to a specified

node in response to said exception data (Paragraph 11). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Sera's invention to come up with transmitting a retransmission request to the node. The motivation for doing so would have been because the data packet was lost initially therefore a re-transmission to the specified node was needed. (Paragraph 11)

As per claim 11, Ross teaches the method of claim 1 but is silent on teaching further comprising transmitting a notification to a specified node in response to said exception data. Sera teach transmitting a notification to a specified node in response to said exception data (Paragraph 11). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Sera's invention to come up with transmitting a notification to a specified node. The motivation for doing so would have been because the data was lost initially and therefore a notification to the specified node was needed (Paragraph 11).

As per claims 32,33,54,55 they teach same limitations as claims 10,11 respectively, therefore rejected under same basis.

6. Claims 13,14, 35,36,57,58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. U.S. Patent # 6,477,571 in view of Frezza et al. U.S. Patent # 4638356 (hereinafter Frezza).

As per claim 13, Ross teaches the method of claim 1 but fails to teach the said data log further comprises a frame sequence number. Frezza teaches data log further comprises a frame sequence number. (Column 4 lines 16-24). It would have been

obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Frezza's invention to come up with data log, which comprises sequence number. The motivation for doing so would have been to use frame sequence to tracking the packets.

As per claim 14, Ross teaches the method of claim 13, but fails to teaches the said generating exception data comprises: tracking a packet from said source node to said destination node using said frame sequence number; and generating output data that includes the results of said tracking. Frezza teaches generating exception data comprises: tracking a packet from said source node to said destination node using said frame sequence number; and generating output data that includes the results of said tracking. (Column 4 lines 16-36). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Ross's invention in Frezza's invention to come up with tracking a packet with frame sequence number and using tracking to generate the output data. The motivation for doing so would have been check that packet was not dropped or lost during transmission from source node to destination node.

As per claims 35,36,57,58 they teach same limitations as claims 13,14 respectively therefore rejected under same basis.

Remarks

As a remark, Applicant asserted:

1) Applicant states "performing isolation of dropped packets in a computer network in a computer network" was not taught by Ross. The following limitation stated by the

applicant has been written in the preamble of the claim, not stated in the actual

limitations therefore it does not carry any patentable weight.

In response to applicant's arguments, the recitation "performing isolation of

dropped packets in a computer network in a computer network" has not been given

patentable weight because the recitation occurs in the preamble. A preamble is

generally not accorded any patentable weight where it merely recites the purpose of a

process or the intended use of a structure, and where the body of the claim does not

depend on the preamble for completeness but, instead, the process steps or structural

limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA

1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

2) Applicant also states Ross does not teach "receiving a request for analysis, said

request including a source node and a destination node". Examiner respectfully

disagrees with the applicant because in column 5 lines 1-13 and 35-60, it states

receiving a service request which contains an information packets, the selected

information packet are provided to recording device to service request analyzer for

analysis. The information packet also includes a node address, which identifies the

source and destination of the information packet. The cited portion of Ross reads on

the claim limitation.

3) Applicant also states Ross does not teach, "mapping an expected path in response to

said request for analysis". Examiner respectfully disagrees with the applicant because

Ross teaches in column 5 lines 15-35 that the recording device (probe) are connected

using the communication line of the segment being monitored and the informational

packets will be communicated on the communication line. Sine the informational

packets for analysis are going to go back and forth on the communication line which is

expected path, the recording device (probe) are going to be placed on the expected

path. The cited portion of Ross reads on the claim limitation.

4) Applicant also states ""monitoring computer" stated by the examiner as a capture

filter profile in the previous office action is a static, physical device and therefore not

capable of being "created" like the capture filter profile recited in claim 1". Examiner

disagrees with the applicant because the monitoring computer does the same function

as a capture filter device and also monitoring computer (capture filter profile) can be

created like a capture filter profile as seen in (fig 2 element 36) because at soon point in

time the monitoring computer (fig 2 element 36) was "created" therefore it is capable of

being created. Examiner also would like to point out that no where in the claim or the

specification does it states that capture filter profile cannot be static or a physical

device. Therefore the examiner cited portion reads on the claimed limitation.

5) Applicant also states Ross does not teach "transmitting a request to said probe to

perform data collection in response to said capture filter profile". Examiner respectfully

disagrees with the applicant because in column 5 lines 1-13, lines 45-54 that the probe

perform data collection when the informational packets are detected (data collection) on

the recording device (probe) and are passed to the monitoring computer (capture filter

profile) responsive to the capture filter profile to conduct analysis. The cited portion

reads on claimed limitation.

6) Applicant also states Ross does not teach, "receiving a data log from said probe, said data log created by said data collection". Examiner respectfully disagrees with the applicant because Ross teaches in column 5 lines 50-67; column 6 lines 1-10 that information packets are detected on the communication line by the recording device (probe) and are collected by service request analyzer. The service request analyzer generates for each service request determined, a service request string that identifies the sequence of information packets therein which is logging the data as in informational packets (data log created by data collection). The cited portion of Ross reads on the claim limitation.

7) Applicant also states Ross does not teach, "generating exception data, wherein exception data is generated in response to comparing said expected path and said data log". Examiner respectfully disagrees with the applicant because Ross teaches in column 5 lines 50-67, column 6 lines 1-10 that identifications and simpler service request representation (exception data) is generated by comparing service request which contains information packets which takes the path on the communication line are matched (compared) with service request identifier which is passed from service request string (data log). Therefore the service request identifier which is passed from service request string (data log) is compared with the service request, which contains information packets, which takes path on the communication line (expected path) to come up with identifications and simpler service request representation (exception data).

As per claims 23 and 45, they teaches similar limitations as claim 1, therefore they are unpatentable over Ross for at least the reasons stated above with respect to claim 1.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). "Transaction Recognition and prediction using regular expressions" by Ross et al. U.S. Patent # 6,477,571

B). "Method and Apparatus for fast distributed restoration of a communication network" by Chao et al. U.S. Patent # 6,549,513

C). "Apparatus and method for restricting access to a communication network" by Frezza et al. U.S. Patent # 4,638,356

D). "Data Packet Transfer network and Data packet transfer method" by Sera et al. U.S. Patent Publication # 2001/0005371

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A. Patel whose telephone number is 571-272-4066. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAP

/SALEH NAJJAR
PRIMARY EXAMINER